

**Master of Public Health - MPH
Entrance Examination – 2018**

Hall Ticket Number

Time: 2 hours

Total Marks: 100

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE ANSWERING.

INSTRUCTIONS

1. This booklet has seventeen (17) pages. Please check thoroughly for all the pages.
2. Enter the Hall Ticket number on the first page of this booklet as well as on the OMR sheet.
3. There are two PARTS in the question paper – PART A (Question numbers 1-25) and PART B (Question numbers 26 -100). In case of a tie, marks obtained in PART A will be considered for resolving the tie.
4. There is negative marking for questions in Part A. For each wrong answer 0.33 marks will be deducted.
5. Scientific Calculators are not permitted.

PART A

1. A site where microbes can survive, multiply, and serve as a continual source of Infection is called a/an:

A. portal of entry
B. reservoir
C. vector
D. agent

2. Tuberculosis is spread by:

A. droplet transmission
B. airborne transmission
C. contaminated water
D. a and b only

3. **Zoonosis is a disease naturally occurring in animals, but the infectious agent can be transmitted to humans**
- A. True
 - B. False
 - C. Neither A or B
 - D. Both A and B
4. **A disease that is continuously present in a certain population would be classified as:**
- A. sporadic
 - B. endemic
 - C. pandemic
 - D. epidemic
5. **Vaccines are available for all of the following EXCEPT:**
- A. Streptococcus pneumoniae
 - B. Influenza
 - C. Pertussis
 - D. Legionnaire's disease
6. **The energy that proteins provide per gram is:**
- A. 4 Kilo Calories
 - B. 6 Kilo Calories
 - C. 7 Kilo Calories
 - D. 9 Kilo Calories
7. **Single most common cause of mental handicap worldwide is:**
- A. Iron deficiency
 - B. Iodine deficiency
 - C. Combination of a and b
 - D. Neither a nor b
8. **Mosquito bites can cause the following disease except:**
- A. Malaria
 - B. Filariasis
 - C. West Nile Fever
 - D. Rabies
9. **X-ray was invented by:**
- A. Robert Koch
 - B. Louis Pasteur
 - C. Wilhelm Rontgen
 - D. Alexander Fleming

10. **The recent Ebola epidemic occurred in:**
- A. Asia
 - B. Australia
 - C. Africa
 - D. Americas
11. **10 babies are born in a hospital on same day. All weigh 2.8 Kg each; what would be the standard deviation:**
- A. 0.28
 - B. 1
 - C. 2.8
 - D. 0
12. **To compare the variability in two populations we use this measure:**
- A. Range
 - B. Coefficient of Variation
 - C. Median
 - D. Standard deviation
13. **For a positively skewed curve which measure of central tendency is largest?**
- A. Mean
 - B. Mode
 - C. Median
 - D. All are equal
14. **Percentiles divides the data into _____ equal parts:**
- A. 100
 - B. 50
 - C. 10
 - D. 25
15. **Characteristics of normal distribution curve includes all except:**
- A. Bell shaped symmetrical curve
 - B. Mean, Mode, Median coincides
 - C. Area under the curve is 1
 - D. Mean of all the curves is same.

16. **Name the special type of protein that fights infection:**
- A. Glucose
 - B. DNA
 - C. RNA
 - D. Antibodies
17. **Which of the following is a permanent method of contraception?**
- A. Oral pills
 - B. Diaphragm
 - C. Loop
 - D. Tubal ligation
18. **Which state has the lowest female literacy rate as per the 2011 census in India?**
- A. Andhra Pradesh
 - B. Rajasthan
 - C. Jharkhand
 - D. Bihar
19. **Targets set out in the Sustainable development Goals (SDGs) is to be achieved by the year:**
- A. 2015 AD
 - B. 2020 AD
 - C. 2030 AD
 - D. 2050 AD
20. **The "All India Institute of Hygiene & Public health" is located in:**
- A. Delhi
 - B. Mumbai
 - C. Kolkata
 - D. Chennai
21. **For Qualitative Research, the data is in the form of:**
- A. Numbers
 - B. Words
 - C. Integers
 - D. Fractions
22. **Surveys are usually:**
- A. Cross sectional in design
 - B. Case control in design
 - C. Trials in design
 - D. Cohorts in design

23. **The Alma-Ata declaration in 1978 was concerned primarily with:**
- A. Women's health issues
 - B. Human rights
 - C. Primary health care
 - D. Restricting health expenditure
24. **Which one of the following is the grass root level worker in the integrated Child Development Services Scheme (ICDS)?**
- A. Auxiliary Nurse Midwife
 - B. Anganwadi worker
 - C. Lady Health worker
 - D. ASHA
25. **A nosocomial infection refers to:**
- A. Infection acquired from animals
 - B. Infection acquired by a neonate from the mother during delivery
 - C. Infection acquired in a hospital
 - D. infection acquired at farms

PART B

26. **In demographic transition, high stationary stage (Stage 1) is characterized by:**
- A. Low birth and death rates
 - B. Birth rate starts declining but death rate declines much faster
 - C. High birth rate and low death rate
 - D. High birth and death rates
27. **What is the ideal population to be covered by a Primary Health Center in tribal areas in India?**
- A. 15000
 - B. 30000
 - C. 20000
 - D. 10000
28. **Which one of the following is not a social determinant of health?**
- A. Poverty
 - B. Marginality
 - C. Illiteracy
 - D. Heredity

29. **Which of the following is NOT a feature of structured questionnaires?**
- A. Fixed sequence of questions
 - B. Less flexibility in conduct of the interview
 - C. Easily standardized
 - D. Lead to wide inter - observer variation of the information elicited.
30. **The spread of cancer cells from the primary tumor to other parts of the body is called:**
- A. Benign
 - B. Congenital
 - C. Metastasis
 - D. Degenerative
31. **DOTS is a strategy to combat which disease?**
- A. Tuberculosis
 - B. Tetanus
 - C. Diphtheria
 - D. Yellow fever
32. **What type of connective tissue connects muscles to bones?**
- A. Tendons
 - B. Ligaments
 - C. Cartilage
 - D. Blood
33. **Indian Systems of Medicine and Homoeopathy (ISM&H) was renamed as Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) in:**
- A. A.2003
 - B. 2000
 - C. 2005
 - D. 2007
34. **The construct of Gender is:**
- A. Biological
 - B. Sociological
 - C. Physical
 - D. Supernatural

35. **Cohort refers to:**
- A. A group of people sharing certain common characteristics
 - B. A protein
 - C. A carbohydrate
 - D. A fat
36. **ABC in First Aid refers to:**
- A. Airway, Breathing & Circulation
 - B. Affordable, Balanced & Cost Effective
 - C. Airway, Breathing, & Communication
 - D. Assistance, Blood & Circulation
37. **Pulse Polio immunization is to eliminate poliomyelitis (polio) in India by vaccinating all children under the age of ...**
- A. 3 years
 - B. 1 Year
 - C. 5 years
 - D. 6 Years
38. **A list of all the sampling units (persons or households) in the actual study population is known as the**
- A. Sampling frame
 - B. Sampling rate
 - C. Sampling ratio
 - D. Cluster sample
39. **Global eradication of smallpox was certified by WHO in the year...**
- A. 1940
 - B. 1840
 - C. 1980
 - D. 2000
40. **In the middle of a clinical trial, one participant decides to withdraw from the trial. But, the investigator pressurizes the participant to continue in the study till it completes. Which of the following ethical principles does the investigator violate?**
- A. Justice
 - B. Autonomy
 - C. Beneficence
 - D. Non-Maleficence

41. **SHGs stands for:**
- A. Social Help Groups
 - B. Special Help Groups
 - C. Self Help Groups
 - D. Suicide Prevention Help Groups
42. **Which of the following is not a type of study design?**
- A. Qualitative study
 - B. Observational study
 - C. Retrospective study
 - D. Pilot study
43. **What is the sex ratio (number of females to 1 000 males) in India according to 2011 Census?**
- A. 980
 - B. 940
 - C. 1080
 - D. 1040
44. **What was the theme of the World Health Day 2018?**
- A. Safe Blood starts with me
 - B. Vector-borne diseases: small bite, big threat
 - C. Universal health coverage: everyone, everywhere
 - D. Halt the rise: beat diabetes
45. **Which hormone secretion deficiency leads to diabetes?**
- A. Thyroxin
 - B. Gastrin
 - C. Insulin
 - D. Calcitonin
46. **International Women's day falls on:**
- A. 8th March
 - B. 7th April
 - C. 8th April
 - D. 1st May
47. **The women reservation bill proposes to reserve __ % of seats in the legislature:**
- A. 33%
 - B. 23%
 - C. 43%
 - D. 53%

48. **Fortification of foods with specific nutrients as salt with iodine, is an example of:**
- A. Primordial prevention
 - B. Primary prevention
 - C. Secondary prevention
 - D. Tertiary Prevention
49. **The “National Tuberculosis Institute” of India is located in:**
- A. Delhi
 - B. Mumbai
 - C. Bengaluru
 - D. Chennai
50. **The national tuberculosis survey was undertaken with the objectives of finding out the magnitude of problem of tuberculosis in the country and the high risk groups. Trained investigators collected data from randomly selected households. This was an example of:**
- A. Primary data collection
 - B. Secondary data analysis
 - C. Aggregate data analysis
 - D. none of the above
51. **In India, the activity of census is carried out once in ten years, during the:**
- A. First quarter of the first year of the decade
 - B. Second quarter of the first year of the decade
 - C. Third quarter of the first year of the decade
 - D. None of the above
52. **An epidemiologist wanted to study whether blood group ‘O’ is protective against peptic ulcer disease as compared to the other three blood group types. Here, the outcome variable is:**
- A. Blood groups
 - B. Peptic ulcer disease
 - C. Both the above
 - D. None of them.
53. **Which of the following is stated mainly for statistical purpose?**
- A. Research question
 - B. Objectives
 - C. Research hypothesis
 - D. All of the above

54. **Phase IV of clinical trial is:**
- A. Post marketing surveillance
 - B. B Pilot study
 - C. Animal studies
 - D. None of the above
55. **Only one of the characteristic of normal distribution curve is correct:**
- A. Non-Parametric tests are used
 - B. Mean, Mode, Median are different
 - C. Area under the curve is 0
 - D. Mean of all the curves is same
56. **In single blinding, _____ is unaware of the status of the subject?**
- A. Analyzer
 - B. Observer
 - C. Subject
 - D. All of the above
57. **Which of the following function does not fall within the purview of “uses of epidemiology”**
- A. Deciding whether our community needs one PHC or 4 subcentres
 - B. Establishing the natural history of HIV infection
 - C. Training the medical students in conducting delivery
 - D. Investigating an outbreak of food poisoning
58. **Any epidemiological study should start with a well formulated research question, developed by:**
- A. Discussions with colleagues and experts
 - B. Thorough academic reading
 - C. Our own clinical experiences
 - D. All of the above
59. **The situation when an observed association between two variables is explained away by a third variable, due to indirect associations is known as:**
- A. Chance
 - B. Bias
 - C. Confounding
 - D. Lack of generalizability.

60. **By random error we mean that:**
- A. No sample is likely to give us results which are exactly the same as the truth in the total population
 - B. No two samples drawn from the same population are likely to give us the same results
 - C. It will not occur if we study the entire population
 - D. All of the above
61. **Data regarding a qualitative variable can be summarized by the following method:**
- A. By calculating the arithmetic mean
 - B. By making categories and calculating percentages in each category
 - C. Both the above methods
 - D. None of the above methods
62. **After we have completed an epidemiological study and are calculating the p - value based on statistical tests, we are:**
- A. trying to minimize the random error
 - B. trying to see whether our study population was representative of reference population
 - C. trying to estimate the probability by which our results are likely to be different from the truth, because of random error
 - D. Trying to find out the extent of measurement error in our study.
63. **What is the tool for control of confounder in experimental design?**
- A. Blinding
 - B. Statistical analysis
 - C. Randomization
 - D. None of the above
64. **Which of the following is correct for a cohort study?**
- A. We take two groups which neither have exposure nor outcome and follow them for defined period of time
 - B. Take two groups in which one group have the exposure and other does not, and both groups do not have the outcome and follow both for defined period of time
 - C. Single group is studied for the presence of exposure and outcome at given point of time
 - D. Take a group which has exposure but not the disease and follow it for defined period of time.
65. **The ability of a measurement process to diagnose correctly as positive those who really have the disease is called as:**
- A. sensitivity
 - B. specificity
 - C. precision
 - D. reliability.

66. Which of the following is not a method of control of confounding?
- A. Restriction
 - B. Matching
 - C. Stratified analysis
 - D. Ensuring use of accurate instruments.
67. While conducting experimental study, arrange the following steps in sequential manner 1) Randomization 2) Blinding 3) Statistical analysis 4) Enumerate the inclusion and exclusion criteria
- A. 4, 1, 2, 3
 - B. 4, 2, 1, 3
 - C. 2, 1, 3, 4
 - D. 2, 1, 4, 3
68. Which of the following is not a method of control of confounding during planning stage?
- A. stratified analysis
 - B. restriction
 - C. pair matching
 - D. frequency matching.
69. An epidemiologist wanted to study whether blood group 'O' is protective against peptic ulcer disease as compared to the other three blood group types. Here, the outcome variable is:
- A. blood groups
 - B. peptic ulcer disease
 - C. both the above
 - D. none of them.
70. Measure of risk in cohort study is:
- A. Relative risk
 - B. Prevalence odds ratio
 - C. Exposure odd ratio
 - D. None of the above
71. Which is the ideal (most scientific) setting for epidemiological study?
- A. Case control study
 - B. Cohort Study
 - C. Experimental study
 - D. Cross sectional study

72. **Likert Scale is a type of:**
- A. Categorical scale
 - B. Ordinal scale
 - C. Dichotomous scale
 - D. None of the above
73. **Descriptive studies perform all the following functions EXCEPT :**
- A. Test hypothesis
 - B. Describe disease occurrence by time
 - C. Describe the place distribution of health related event
 - D. Generate hypothesis.
74. **Which of the following is not a unique feature of experimental study?**
- A. The study is prospective
 - B. The study can be both prospective and retrospective
 - C. There is random allocation of subjects to the study and control groups
 - D. The investigator introduces an intervention.
75. **It is sometimes difficult to establish temporal association in the following study design:**
- A. Experimental study
 - B. Cohort study
 - C. Cross - sectional study
 - D. All of the above.
76. **Loss to follow up or attrition is a problem with:**
- A. Case control study
 - B. Cross - sectional study
 - C. Cohort study
 - D. All of above.
77. **Most likely reason for failure to establish a cause effect relationship with small sample sizes is:**
- A. Alpha error or Type I error
 - B. Beta error or Type II error
 - C. Measurement errors
 - D. Observer errors.
78. **The strength of association in a cause effect relationship is indicated by:**
- A. 'p' value
 - B. The magnitude of the RR or OR
 - C. Consistency of association
 - D. All of the above

79. **If RR or OR is 1, it indicates that:**
- A. There is no cause effect relationship
 - B. There is Alpha Error
 - C. There is type 1 error
 - D. None of the above.
80. **All of the following are true about case - control studies EXCEPT:**
- A. Both exposure and outcome has occurred before start of the study
 - B. Study progresses backwards from outcome to exposure
 - C. Uses control group for testing hypotheses
 - D. Loss to follow up (attrition) is the main disadvantage.
81. **Which of the following is characteristic of Qualitative research?**
- A. Predict causal relationships
 - B. Are Objective
 - C. Measure level of confidence
 - D. Describe individual experiences.
82. **The following is false regarding FGD:**
- A. 6 - 12 participants who are willing to talk
 - B. These participants should be as homogenous as possible with respect to their background characteristics
 - C. Moderator leads the discussion
 - D. There is a recorder who notes down the proceedings and draws the sociogram.
83. **Which of the following is used for representing qualitative data?**
- A. Histogram
 - B. Polygon
 - C. Pie chart
 - D. Line chart
84. **The scatter plot is used to display:**
- A. Causality
 - B. Correlation
 - C. Power
 - D. Type II error
85. **The appropriate method of displaying the changes that occur in disease frequency over time:**
- A. Line chart
 - B. Bar chart
 - C. Histogram
 - D. Stem and leaf.

86. Of the 140 children, 20 lived in owner occupied houses, 70 lived in council houses and 50 lived in private rented accommodation. Type of accommodation is a categorical variable. Appropriate graphical presentation will be
- A. Line chart
 - B. Simple Bar chart
 - C. Histogram
 - D. Frequency Polygon
87. Area enclosed in normal distribution curve between Mean ± 2 S.D. is:
- A. 90%
 - B. 95%
 - C. 99%
 - D. 20%
88. Mean of unit normal distribution is:
- A. One
 - B. Zero
 - C. Unknown
 - D. Hundred
89. Type-1 error is:
- A. Rejecting true null hypothesis
 - B. Rejecting false null hypothesis
 - C. Accepting true null
 - D. Accepting true null hypothesis
90. Strict vegetarian diet results in the deficiency of
- A. Vitamin B1
 - B. Biotin
 - C. Vitamin B12
 - D. Vitamin D
91. Which one of the following is not correct?
- A. Insulin : Pancreas
 - B. Epinephrine : Adrenal gland
 - C. Prolactin : Pituitary gland
 - D. Oxytocin : Thyroid gland

92. We need ___ grams of dietary fibre per day:
- A. 5-15
 - B. 15-20
 - C. 25-35
 - D. 45-50
93. A circle divided into sectors proportional to the frequency of items shown is called:
- A. Bar chart
 - B. Pie chart
 - C. Frequency polygon
 - D. Histogram
94. Which of the following is not a water-soluble vitamin?
- A. Vitamin B
 - B. Vitamin C
 - C. Vitamin E
 - D. None
95. Following statement is not true about Japanese Encephalitis:
- A. Pigs are considered as "amplifiers"
 - B. Cattle and buffaloes are considered as "amplifiers"
 - C. Man is an incidental "dead end host"
 - D. Initial viral replication occurs in local and regional lymph nodes
96. The following except one, is the component of Epidemiological triad:
- A. Agent
 - B. Environment
 - C. Modes of transmission
 - D. Host
97. Insulin deficiency causes:
- A. Diabetes insipidus
 - B. Goitre
 - C. Diabetes mellitus
 - D. All of the above

98. Acceptable daily exposure of sound level limit without substantial damage to hearing is _____ decibels:

- A. Upto 85 dB
- B. Upto 100 dB
- C. 60 dB
- D. 75 dB

99. What is stunting?

- A. Low height-for-age
- B. Low weight-for-height
- C. Weight-for-height
- D. None of the above

100.

Match the Following

List-I

Arthropod

- (a) Mosquito
- (b) Rat flea
- (c) Black fly
- (d) Tsetse fly

List-II

Disease Transmitted

- (i) Sleeping sickness
- (ii) Onchocerciasis
- (iii) Viral encephalitis
- (iv) Bubonic plague

- | | (a) | (b) | (c) | (d) |
|----|-------|-------|------|-------|
| A. | (iv) | (iii) | (i) | (ii) |
| B. | (iii) | (iv) | (ii) | (i) |
| C. | (iii) | (ii) | (iv) | (i) |
| D. | (i) | (ii) | (iv) | (iii) |

THE END
